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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
STERRETT, JONATHAN G	

ART UNIT	PAPER NUMBER
3623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/779,216	TSANG ET AL.	
	Examiner	Art Unit	
	Jonathan G. Sterrett	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *22-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Summary

1. This **Office Action** is responsive to applicant's amendment filed November 3, 2005. Currently **Claims 22-53** are pending.

Response to Arguments

2. The applicant's arguments have been fully considered, but they are not persuasive.

3. The applicant argues the cited references do not teach "receiving a set of search criteria, submitted by a user, for performing a search, the set of search criteria including a criterion assigning a weight to a particular networked source of data"

4. The examiner respectfully disagrees.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Tamayo teaches receiving a set of search criteria for performing a search. These criteria as disclosed as queries and also as inputs to models to provide for training the models for searching and recommendations. There is no way a

model could search and make recommendations to a user if the model was not provided with some inputs from the user as to search specifics . Tamayo also teaches that some sources of information are more important than others, but does not teach assigning a weight to them (The models used to make recommendations end up assigning weights to various factors, including sources of information, but this is not done explicitly by the user. For example, Tamayo teaches if a person is looking at a specific website related to a car, then the model is going to apply a weight to that particular website in making a recommendation to the user, especially if that particular website has received a lot of traffic by the user). However, Biffar does teach where the user can highlight and lock in specific data sources to emphasize their importance to a search and apply ratings as well in providing input to the search. The rejection of this limitation is made over a combination of Biffar and Tamayo.

5. The applicant argues the cited references do not teach "generating a data analysis from the stored cleaned data, based on the set of search criteria submitted by the user."

The examiner respectfully disagrees.

Tamayo teaches performing at least two types of data analyses from the stored cleaned data, based on the set of search criteria submitted by the user. One data analysis results in recommendations being made to the user (see para 235). The other data analysis results in a market basket analysis (see para 245).

6. The applicant argues the cited references do not teach "removing superfluous data elements, including navigational and advertising elements"

The examiner respectfully disagrees.

Tamayo teaches performing cleaning and manipulating of web data, including removing superfluous elements. These can include navigational and advertising elements. The kinds of data that is cleaned, or removed from further consideration by web-mining includes information from the internet, which would include navigational and advertising elements. See also para 148. In some cases Tamayo teaches including these elements for the user, and in some cases, removing them. Tamayo teaches that the flexibility of data mining allows for both approaches. Tamayo does not expressly teach the specific data recited in claims 22, 33, 43. These differences are only found in the non-functional descriptive material and are not functionally involved in the steps recited nor do they alter the recited structural elements; therefore, such differences do not effectively serve to patentably distinguish the claimed invention over the prior art. The recited method steps would be performed the same regardless of the specific data. Further, the structural elements remain the same regardless of the specific data. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); In re Lowry, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); MPEP § 2106.*

7. The applicant argues the cited references do not teach "extracting metadata and an actual body of a document from the aggregated data".

The examiner respectfully disagrees.

The server data that Tamayo teaches retrieving is metadata, in that it comprises data about web traffic, i.e., data about the data transmitted over the web. Tamayo teaches that entire webpages can be obtained from the internet and stored (see para 10).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. **Claims 22-53** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamayo US 2002/083067 (hereinafter **Tamayo**) in view of US 6,397,212 Biffar (hereinafter **Biffar**).

Regarding **Claim 22**, Tamayo teaches:

aggregating data gathered from a plurality of networked sources, wherein the data includes a plurality of documents;

cleaning the aggregated data by removing superfluous data elements, including navigational and advertising elements,

(Para 7, 8, 105, 106, Tamayo et al. teach Enterprise web mining involves collecting data from a plurality of data sources, integrating the collected data, and generating a prediction or recommendation in response to a received request. The plurality of data sources comprises proprietary account or user-based data; complementary external data, web server data, and web transaction data. The web server data comprises web traffic data obtained by Transmission Control Protocol/Internet Protocol packet sniffing, web traffic data obtained from an application program interface of the web server, and a log file of the web server. Web access data is not necessarily transaction-based and can be extremely noisy. The Web data pre-processing performed includes data cleaning that involves removing redundant or irrelevant information from Web server log files. Web-server data is considered metadata.); - see also para 148 where content may be modified, including advertisements and navigational links.

and extracting metadata and an actual body of a document from the aggregated data;

para 44, data of any type, including metadata and an actual body of a document, can be extracted from data sources connected to the system.

storing the cleaned data in a database;

Para 48, Tamayo et al. teaches memory stores the data that are used.

receiving a set of search criteria, submitted by a user, for performing a search,

para 45, search queries to do data mining are received by the user. These search queries are a set of search criteria.

Para 114, models that are used to make recommendations do so based on search criteria submitted by a user – see also para 127 and para 136.

the set of search criteria including a criterion assigning a weight to a particular networked source of data;

paragraph 175, training tables are a particular networked source of data that are used to train algorithms what to look for in making recommendations. The models discussed in para 114 include criterion which assign weights to elements in the training table so that subsequent applications of the algorithm, when trained, result in useful recommendations. See also para 235 for how weights in association with business rules are used to make recommendations.

generating a data analysis from the stored cleaned data, based on the set of search criteria submitted by the user;

para 235, the models that are trained (based on a set of search criteria specified by the user) and deployed to make recommendations, result in a data analysis from the stored cleaned data – see also para 245 for a discussion of off-line web market basket analysis.

generating a reporting analysis based on results of the data analysis; and formatting the reporting analysis in accordance with previously obtained user preferences.

(Para 69-70, and 90, Tamayo et al. teach a personalization application that is an integrated software application that provides a way for a Web site to customize or personalize the recommendations it presents to Web site visitors and customers. The recommendations are personalized for each visitor to the Web site. Recommendations are based on the visitor's data. The reporting engine provides a variety of reports and result summaries.)

Tamayo teaches that some sources of data result in more information than others, based on the weighting of factors used in models to make recommendations.

However, Tamayo does not teach assigning weights to a particular networked data source among a plurality of networked data sources.

Biffar teaches a search engine that allows for intelligent multi-dimensional searches, in which the search engine always presents a complete, holistic result, and in which the search engine presents knowledge (i.e. linked facts) and not just information (i.e. facts). The description shows the search results that can be text based, a picture, video, sound, or a combination thereof. The description can be short or long and have scroll down features, be interactive, hyper linked to detailed descriptions, or include special effects. The system is adaptive, such that the search results improve over time as the system learns about the user and develops a user profile. The search engine is self-personalizing in that it collects and analyzes the user history where the user reacts to solutions and the system learns from such user reactions. The user can change search parameters for the next search. The action may be executed by a variety of methods, such as a pull down menu, yes and no questions, multiple choice questions, and/or ratings. A locking function allows the user to lock in characteristics, which are desired. The user can also unlock characteristics (col. 3, lines 21-35, and col. 6, lines 15-49) and can specify which websites to query (column 5 line 55-57, i.e. specific network data sources).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include the search engine results and specific network data source search capability teachings of Biffar with the teachings of Tamayo et al. because Tamayo et al. teach that it is old and well known in the data-mining art to collect data from a plurality of data sources and use weighted inputs from those data sources to generate a recommendation in response to a received request (Para 7). Management wants accurate, detailed data to be analyzed and summarized quickly in order to make sound business decisions. Computer and Internet technology enables users to collect data and with data-mining techniques allows the user to analyze and summarize the data retrieved. Some websites provide more useful data for models than others and thus provide more important inputs to models that are used to predict consumer behaviour. The computers greatly reduce to the time collect data and to analyze and summarize the data, therefore, allowing management to have access to up-to-date processed information to make informed business decisions.

Regarding **Claim 23**, Tamayo teaches:

wherein the reporting analysis focuses on a particular user-specified business department within a particular user-specified industry.

Paragraph 196, account types can include the type of company.

Paragraph 4, data analysis can be applied to inventory management (i.e. a department within a company), and accounting.

The invention of Tamayo can be applied to any user-specified business department within a particular user-specified industry, provided there is data on a network to be analyzed. –see also para 66 and para 94 (reporting engine 910 in Figure 10).

Regarding **Claim 24**, Tamayo teaches:

wherein the reporting analysis focuses on a particular user-specified industry, which is one of: high-technology, electronics, automotive, financial services, and entertainment.

As noted in Claim 23, Tamayo's invention can be applied wherever there is a source of network data that datamining techniques can be applied to. Official Notice is taken that this includes high-technology, electronics, automotive, financial services (note that Tamayo teaches for Claim 23 above, the application of data mining to an accounting system) and entertainment, as it is old and well known in the art that these industries utilize networks to store and transmit information. Applying Tamayo's datamining techniques to these industries would provide an efficient way for them to analyze data that is being stored and transmitted on their networks.

It would have been obvious to one of ordinary skill in the art to further modify the combined teachings of Tamayo and Biffar, regarding using data mining techniques to provide data analyses, to include the step of applying the data mining techniques for providing analyses for a specific industry in high

technology, electronics, automotive, financial services and entertainment, since it would provide a way to efficiently analyze data that is being stored and transmitted on their networks.

Regarding **Claim 25**, Tamayo teaches:

wherein the reporting analysis focuses on a particular user-specified business department which is one of: marketing, support, finance, research and development, sales, and executive.

Para 4, accounting is a finance department that has data applicable to the datamining and reporting techniques described by Tamayo.

Regarding **Claim 26**, Tamayo teaches:

wherein the search criteria comprise publication listings and/or the timeframe in which publications have been published.

Tamayo teaches that a multitude of data sources on the web can have search criteria applied to them. Para 40 lists explicit data from amazon.com, i.e. ratings of books which include publication listings.

Regarding **Claim 27**, Tamayo teaches:

wherein the reporting analysis applies performance metrics according to the data gathered from the user.

Para 70 and 77, ratings gather from the user are performance metrics. The recommendations (i.e. reporting analysis) generated from the system uses the ratings (i.e. applies them) as part of generating the recommendation.

Regarding **Claim 28**, Tamayo teaches:

storing the search criteria in association with the user in a memory.

Para 81, for identified users the search criteria is stored to form a historical record (i.e. in memory).

Regarding **Claim 29**, Tamayo teaches:

wherein the data analysis analyzes the stored cleaned data for particular types of relationships.

Para 68, the data web mining performs a statistical analysis of what the user clicks on in order to determine whether a particular up-sell, is applicable to the customer. The relationship identified is between a number of potential up-sell opportunities, and those most relevant to the customer based on their web usage.

Regarding **Claim 30**, Tamayo teaches:

wherein the data analysis further analyzes the stored cleaned data for keywords.

Para 88, keywords are identified in the stored data as part of the data analysis.

Regarding **Claim 31**, Tamayo teaches analyzing the data for keywords, but does not determine analyzing the keywords for prominence.

However Official Notice is taken that analyzing keywords for prominence, that is, their proximity to the beginning of the sentence or phrase where they appear, is old and well known in the art of searching. Higher prominence of a keyword in a website title is favorable because it provides a way to measure how important that keyword is to the website or other document found.

It would have been obvious to one of ordinary skill in the art to further modify the combined teachings of Tamayo and Biffar, regarding providing a data mining functionality that uses keywords in searches, to include the step of analyzing the result of the search for prominence, because it would provide a way to measure how important the keyword was to the identified website or document found.

Regarding **Claim 32**, Tamayo teaches:

performing a historical analysis of previous sets of search criteria provided and modified by the user; and automatically and transparently modifying the search criteria if the historical analysis indicates a refined version of the search criteria.

Para 81, historical data is maintained for each user so that recommendations are automatically and seamless made from the trained model. The model operates by collecting data and using it to build predictive models based on data that is continuously updated (i.e. forming a historical archive) while the user is viewing website. Recommendations (i.e. based on analyses of this data) are automatically and seamlessly provided to the user without their intervention.

Claims 33-53 recite limitations similar to those addressed by the rejection of **Claims 23-32** above, and are therefore rejected under the same rationale.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Parker, Kevin, "Cures for the 'software crisis'", Oct 1994, Manufacturing Systems, Vol. 12, Iss. 10, p.46, ProQuest ID 24627.

Fulcher, Jim; "A far-reaching impact", Jul 1996, Manufacturing Systems, Vol. 14, Iss. 7, p.100, ProQuest ID 9872923.

Keliman, Hal, "Gensym is the Intelligent Choice", Sep 1996, Upside, 8, 9; ABI/INFORM, p.102.

Parker, Kevin, "Too much information?", Sept 1996, Manufacturing Systems, Vol. 14, Iss. 9, p.16, ProQuest ID 2462711.

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan G. Sterrett whose telephone number is (571) 272-6881. The examiner can normally be reached on Monday-Friday, 8:00AM - 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JGS
1/12/2006

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